

Northern Michigan University

College of Arts and Sciences

*Department of
Mathematics and Computer Science*

Computer Science Major



<i>Name:</i>	<i>Date:</i>
<i>SS#:</i>	<i>Advisor:</i>
<i>Major: Computer Science</i>	<i>Minor:</i>

Computer Science Major

128 Credits

<i>Major (60 Credits)</i>	<i>Credits</i>	<i>Transfer Credits</i>	<i>NMU Credits</i>
<i>Computer Science Core</i>	35		
*CS120 Computer Science I or CS120A	4		
CS122 Computer Science II	4		
CS201 Programming in C++	3		
CS222 Data Structures	4		
CS228 Network Programming	3		
CS322 Principles of Programming Languages	4		
CS326 Object Oriented Design	3		
CS330 Microcomputer Architecture	4		
CS422 Algorithms: Design & Analysis	3		
CS426 Operating Systems	3		
<i>Mathematics Core</i>	15		
**MA161 Calculus I	5		
MA163 Calculus II	4		
MA211 Intro to Matrix Theory Linear Algebra	3		
MA240 Discrete Mathematics	3		
<i>Core Electives</i>	10		
<i>Mathematics Electives: Choose one of the following courses (3–4 Credits)</i>			
<ul style="list-style-type: none"> • MA171 Introduction to Probability & Statistics (4 Crs.) • MA310 Mathematical Models & Problems (4 Crs.) • MA380 Linear Programming (3 Crs.) • MA381 Integer Programming & Network Flows (3 Crs.) • MA410 Mathematical Modeling (3 Crs.) • MA473 Numerical Analysis (4 Crs.) 			
<i>CS, CIS and MA Electives: Choose any combination from the following (6 Crs.)</i>			
<ul style="list-style-type: none"> • CS courses numbered 300 or higher, excluding those with middle digit "5." (1-6 Crs.) • CIS464 Data Base Managements Systems (3 Crs.) • MA courses numbered 265 or higher excluding those with middle digit "5" and excluding MA271, MA331, and MA484. (1-6 Crs.) 			

*Satisfies the formal communications studies requirement.

**Satisfies one of the foundations of natural sciences/mathematics requirements.

Physical Education

	<i>Physical Education (2 Credits)</i>	<i>Transfer Credit</i>	<i>NMU Credit</i>

Minor

<i>*Minor (20 Credits)</i>	<i>Transfer Credits</i>	<i>NMU Credits</i>

*Mathematics may be declared as a minor if at least five credits of the electives are in mathematics courses.

Electives

<i>Electives (6 Credits)</i>	<i>Transfer Credits</i>	<i>NMU Credits</i>

Liberal Studies

	<i>Liberal Studies (30 - 40 Credits)</i>	<i>Transfer Credit</i>	<i>NMU Credit</i>
<i>I</i>	<i>Composition (8 Credits)</i>		
<i>II</i>	<i>Humanities (8 Credits)</i>		
<i>III</i>	<i>Mathematics/Natural Science (8 Credits)</i>		
<i>IV</i>	<i>Social Science (8 Credits)</i>		
<i>V</i>	<i>Formal Communications (4 Credits)</i>		
<i>VI</i>	<i>Visual and Performing Arts (4 Credits)</i>		

